

*Issued under the Coal-mines Amendment Act, 1909, after Examination.*

Allan, James, Brunnerton.  
 Anderson, Walter, Blackball.  
 Berry, T., jun., Huntly.  
 Birchall, J., Burnett's Face.  
 Blair, Peter, Huntly.  
 Boddy, Archibald John, Runanga.  
 Broadbent, Samuel, Huntly.  
 Brown, J., jun., Denniston.  
 Buchanan, William, Millerton.  
 Burdon, George, Denniston.  
 Burt, T., Huntly.  
 Burt, W., jun., Huntly.  
 Carson, Frederick.  
 Clark, W. S., Dunollie.  
 Connolly, John, Runanga.  
 Connolly, John Joseph, Runanga.  
 Curran, James, Ngakawau.  
 Cuthbertson, John, Glentunnel.  
 Danks, Peter, Millerton.  
 Darby, W., Huntly.  
 Davidson, Thomas, Mine Creek.  
 Davis, Oliver James, Runanga.  
 Dowgray, John, Millerton.  
 Downes, William Norbury, Cobden.  
 Duggan, Francis, Runanga.  
 Dutton, John, Granity.  
 Fox, Henry John, Blackball.  
 Griffen, James, Kaitangata.  
 Hall, R. H., Huntly.

Hawkins, Joseph, Burnett's Face.  
 Hendry, John, Millerton.  
 Hicks, J. R., Kiripaka.  
 Hilton, Thomas, Denniston.  
 Honey, Archibald John, Denniston.  
 Hopkinson, Joseph, Seddonville.  
 Innes, Andrew, Runanga.  
 Johnson, J. H., Hikurangi.  
 Johnson, Thomas, Huntly.  
 King, Thomas Henry, Granity.  
 Lauder, Matt Currie, Runanga.  
 McAvoy, William, Ngakawau.  
 McDonald, Thomas, Burnett's Face.  
 McKernan, John, Millerton.  
 McMillan, John, Huntly.  
 McMillan, John, Kaitangata.  
 Maddison, W., Huntly.  
 Makepeace, Henry, Runanga.  
 Mitchell, A., Seddonville.  
 Morganti, Louis, Millerton.  
 Moreland, S., Hikurangi.  
 Mosley, J. T., Denniston.  
 Moye, John Patrick, Denniston.  
 Myers, Richard, Millerton.  
 Newton, Charles, Runanga.  
 Nicholson, David, Huntly.  
 Niven, Peter, Ngakawau.  
 Nolan, John, Granity.  
 O'Brien, Denis Quinlan, Millerton.

O'Brien, Martin, Millerton.  
 Parker, Andrew, Greymouth.  
 Parr, Joseph, Burnett's Face.  
 Paul, James, Seddonville.  
 Pearson, Samuel George, Burnett's Face.  
 Pearson, William, Burnett's Face.  
 Reed, W. H., Hikurangi.  
 Ruston, Edwin Walter, Huntly.  
 Seddon, William, Huntly.  
 Smith, J. A., Seddonville.  
 Smith, Thomas W., Millerton.  
 Southward, William, Runanga.  
 Strongman, Charles James, Cobden.  
 Sweeney, John Lewis, Runanga.  
 Tate, Anthony, Seddonville.  
 Taylor, Christopher, Millerton.  
 Thawley, William, Denniston.  
 Thomson, Thomas, Mine Creek.  
 Vurlow, Frederick Alexander, Denniston.  
 Wallwork, Moses, Runanga.  
 Wear, Daniel, Huntly.  
 Webster, Oliver, Huntly.  
 White, Edward, Granity.  
 Wood, W., Huntly.  
 Worthington, T., Millerton.  
 Young, Thomas, Granity.

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Broadfoot, W., Millerton.  
 Burgess, R. S., Waikaka.  
 Cain, Alexander, Waikaia.  
 Cameron, D., North Chatton.  
 Churchill, S. G., Alexandra South.  
 Clasen, Charles, Shag Point.  
 Crabbe, George, Alexandra South.  
 Cumming, J. S., Denniston.  
 Cunningham, Thomas, Kaitangata.  
 Dixon, A., Nightcaps.  
 Garrey, W., Kaitangata.  
 Gray, Hugh, Dunedin.

Halsey, W. J., Saddle Hill.  
 Hartshorne, W. C., Brunnerton.  
 Hodgetts, I., Burnett's Face.  
 Hunt, William, Shag Point.  
 Junker, F. A., Waikaia.  
 Kidd, G. C., Albury.  
 King, J., Granity.  
 Lee, S., Nightcaps.  
 Mackie, N., Longridge.  
 McAuley, John, Kaitangata.  
 McClimont, John, Mount Somers.  
 McDowell, R., Nightcaps.

McIntosh, A. S., Shag Point.  
 McIvor, W., Waikaka.  
 Nelson, J. H., Pukerau.  
 Ramsey, George, Waikaka.  
 Robinson, R., Ngakawau.  
 Russell, H. C., Bannockburn.  
 Saunders, W., Denniston.  
 Stevenson, J., Shag Point.  
 Thomas, B., Denniston.  
 Tinker, G., Nightcaps.  
 Whittlestone, G. F., Abbotsford.

## ANNEXURE C.

## MINERS' BATHS.

By H. F. BULMAN and W. B. WILSON.

*[Read, 10th February, 1912, before the North of England Institute of Mining and Mechanical Engineers.]*

OF all the changes made by the new Coal-mines Act none, perhaps, has attracted more general interest than the proposal to provide facilities for miners to wash themselves and to change and dry their clothes at the pit-head. This provision seems likely to be a benefit to the miner in promoting not only his own personal comfort and cleanliness, but also that of his home, and in relieving his womenfolk of much of their present household-work. There is no doubt that many of the miners at the present moment dislike the idea, but experience in other countries, where the system has been in force for a number of years, shows that when once the miner becomes accustomed to changing his clothes and washing at the pit he much prefers the innovation, and would strongly object to revert to the old custom.

In Belgium the practice is being increasingly introduced, and in a paper by Mr. Kuss, Inspector of Mines, it is stated that at 1st April, 1910, of 278 collieries at work, forty-two, employing 21,560 men underground, were provided with spray-baths of modern construction. The workmen quickly grasped the benefits which these baths procured for them, and of these 21,560 men 16,650, or 77·3 per cent., voluntarily made use of the baths in 1909.

In the north of France, where the use of baths is also voluntary, the experience is similar; and in Westphalia, where the measure was made compulsory at all collieries by a decree dated 12th March, 1900, it is carried out to the mutual satisfaction and approval of both employers and workmen.

The information embodied in the present paper was gathered by the authors during a visit in May, 1911, to some of the largest and newest installations of baths at collieries in Westphalia, Belgium, and the north of France.